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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,671	09/29/2003	Uwe Knebel	Q77462	8282
23373 7590 02/14/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER KEEFER, MICHAEL E	
			ART UNIT 2109	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/14/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/671,671

Applicant(s)

KNEBEL ET AL.

Examiner

Michael E. Keefer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/29/2003</u> | 6) <input type="checkbox"/> Other: ____  |

### **DETAILED ACTION**

1. This Office Action is responsive to the Application filed 9/29/2003.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Oath/Declaration***

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The specification to which the oath or declaration is directed has not been adequately identified. See MPEP § 602.

#### ***Specification***

4. The disclosure is objected to because of the following informalities:

On page 3, it is suggested that the first paragraph under "Summary of the Invention" be deleted.

It is additionally suggested that the phrase "In particular," in line one of the last paragraph be deleted and replaced with --These and other objects that appear below are achieved because--.

On page 7, it is suggested that the word "a" on line 15 be deleted and replaced with --its--.

On page 8, paragraph 4, line 1, it is suggested that --TMN-- be inserted between "plane" and "needs".

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On page 9, line 12, it is suggested that the word "fall." be deleted and replaced with the word --fail.--.

Appropriate correction is required.

### ***Claim Objections***

5. Claims 2-4 and 6-9 are objected to because of the following informalities:

Regarding claims 2-4, it is suggested that in line 1 the word "A" before "method" be deleted and replaced with the word --The-- to improve the clarity of the claim.

Regarding claims 6-9, it is suggested that in line 1 the word "A" before "network" be deleted and replaced with the word --The-- to improve the clarity of the claim.

Regarding claim 2, it is suggested that the word "the" in line 2 be deleted to improve the clarity of the claim.

Regarding claim 6, it is suggested that the word --said-- be inserted in line 11 between "during" and "consolidation" to improve the clarity of the claim.

Regarding claim 7, it is suggested that that the word "the" in line 2 be deleted to improve the clarity of the claim.

Regarding claim 9, it is suggested that in line 4 the phrase "fetch-ahead" be deleted and replaced with the phrase --the fetch-ahead phase-- to improve the clarity of the claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Dang et al. (US 2003/0189896), hereafter Dang.

Regarding claim 1, Dang discloses:

A method of re-configuring a network element of a transmission network to restore traffic after a failure, said method comprising the steps of:

generating a configuration request to implement a new cross-connection through said network element ([0032] describes how the head node might receive a generated request to repair a broken network path (i.e. a configuration request), which means that the request inherently was generated in order to be received.)

performing said request in a first fetch-ahead phase comprising only configuration steps essential for fast implementation of said cross- connection and skipping security related configuration steps thereby providing reduced security against process restarts ([0034] describes a first stage of reconfiguration

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where connectivity is restored as soon as possible with the expense of some constraints (i.e. skipping non-essential steps)); and

performing said request in a second consolidation phase comprising said previously skipped security related configuration steps. ([0035] describes a second stage of reconfiguration where the full constraints are fulfilled.)

Regarding claim 5, Dang discloses:

A network element of a transport network ([0022] lines 1-2, "a network node"), comprising:

a number of input and output ports (See Fig. 6, User Cards 86, 88, and Network Cards 90 and 92),

a cross-connection matrix for randomly establishing connections from any to an port (see Fig. 6 Switching Fabric 82) and

at least one controller (see Fig. 6 connection manager 84) for configuring said network element and establishing cross-connections through said matrix;

said controller being adapted to perform a received configuration request in a fetch-ahead phase first and to perform said request in a consolidation phase thereafter;

wherein said fetch-ahead phase comprises only configuration steps essential for fast implementation of said cross-connection and skipping security related configuration steps thereby providing reduced security against process restarts ([0034] describes a first stage of reconfiguration

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where connectivity is restored as soon as possible with the expense of some constraints (i.e. skipping non-essential steps)); and

wherein said consolidation request comprises said previously skipped security related configuration steps. ([0035] describes a second stage of reconfiguration where the full constraints are fulfilled.)

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dang as applied to claims 1 and 5 above, and further in view of Ardis et al. (US 6591373), hereafter Ardis.

Regarding claims 2 and 7, Dang discloses:

Said consolidation phase comprising: storing of the configuration changes in a persistent local database. (it is inherent that in switching from the path established in the first phase to the path established in the second phase that the second phase's result must be stored in a persistent database.)

Dang discloses all the limitations of claims 2 and 7 except that said consolidation phase comprises a consistency check of said request.

The general concept of performing a consistency check of a request is well known in the art as taught by Ardis (See Ardis, Col 31, lines 44-64 and Fig. 2.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the second phase of Dang with the general concept of performing a consistency check of a request as taught by Ardis in order to "consistently control the configuration of a system". (Ardis, Col 2, Lines 24-27)

10. Claims 3, 4, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dang as applied to claims 1 and 5 above, and further in view of Legge ("Change your screen resolution: it could be a whole new ballgame").

Regarding claims 4 and 9,

Dang discloses all the limitations of claims 4 and 9 except for a timer is started during said fetch-ahead phase and if said timer lapses before said consolidation phase has been completed, configuration steps performed during fetch-ahead are undone by re-loading stored configuration data.

The general concept of having a timer during reconfiguration is well known in the art as taught by Legge (After a new resolution is applied (i.e. fetch-ahead) a 15 second timer is started, which waits for a user to confirm the resolution change, which after it expires the screen is returned to its previously configured resolution.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method and system of Dang with the general concept of having a timer during reconfiguration as taught by Legge in order to ensure a known working configuration is active.

Regarding claims 3 and 8,



Dang discloses all the limitations of claims 3 and 8 except for execution of said request in the fetch-ahead phase leads to an inconsistency between actual hardware configuration and locally stored configuration data of said network element and wherein during said consolidation phase, said inconsistency is resolved.

The general concept of an inconsistency that appears during a test phase being resolved during a consolidation phase is well known in the art as taught by Legge (note "Should your screen go blank or appear to go wild" is a hardware inconsistency with the local configuration data, and that if during the phase where the system is waiting for a user response the user can choose not to respond and the system will return to a configuration state that is consistent with the video display hardware.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dang with the general concept of an inconsistency that appears during a test phase being resolved during a consolidation phase as taught by Legge in order to ensure a known working configuration is active.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dang as applied to claim 5 above, and further in view of Jakel et al. (CA 02272425), hereafter Jakel and Haakana et al.(US 6801774), hereafter Haakana.

Dang discloses all the limitations of claim 6 except for

wherein said controller comprises a layered control software with at least two software layers,

a first software layer comprising an abstraction of physical and logical resources of said network element for the purpose of network management and

a second software layer comprises a representation of the actual hardware modules of the network element and its configuration, each of said software layers comprising a individual persistent storage storing an image of configuration data of the corresponding software layer;

said controller being adapted to successively process said request in each of said layers and forward it to the next lower layer,

wherein storing of configuration data to the persistent storage is performed in each of said layers during consolidation phase, only.

Jakel teaches:

wherein said controller comprises a layered control software with at least two software layers, (note Fig 1 which teaches multiple layers of software Layer1-Layer4)

a first software layer comprising an abstraction of physical and logical resources of said network element for the purpose of network management (page 7 lines 4-8 describe the MIB which is an abstraction of physical and logical resources) and

a second software layer comprises a representation of the actual hardware modules of the network element and its configuration, (lines 11-

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4 describe a firmware layer that knows the actual state of the hardware modules.)

each of said software layers comprising a individual persistent storage storing an image of configuration data of the corresponding software layer; (note Fig. 1 where each layer has attached storage DB1-4) said controller being adapted to successively process said request in each of said layers and forward it to the next lower layer, (note page 9, Steps S1-S5 describe the process of processing and storing the request through each layer)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the network node of Dang with the layered software system of Jakel in order to improve the availability, robustness and survivability of a system. (Jakel, page 3, lines 27-30)

The general concept of waiting until a connection is fully secure and tested before writing configuration information to a database is well known in the art as taught by Haakana (Col 5, lines 38-63, where the network element is only recorded into the network management system after all testing and connection is complete).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dang and Jakel with the general concept of waiting until a connection is fully secure and tested before writing configuration information to a database as taught by Haakana in order to reduce configuration errors.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael E. Keefer whose telephone number is (571) 270-1591. The examiner can normally be reached on Monday-Thursday 8am-5pm, second Fridays 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on (571) 270-1808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MEK 2/5/2007

FRANTZ JULES  
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to be 'Frantz Jules', written over a horizontal line.